

L5 ANSWER 2 OF 7 AGRICOLA  
AN 96:35723 AGRICOLA  
DN IND20516814  
TI Transgenic barley (Hordeum vulgare L.) by **electroporation** of  
protoplasts.  
AU Salmenkallio-Marttila, M.; Aspegren, K.; Akerman, S.; Kurten, U.;  
Mannonen, L.; Ritala, A.; Teeri, T.H.; Kauppinen, V.  
CS VTT Biotechnology and Food Research, Espoo, Finland.  
AV DNAL (QK725.P54)  
SO Plant cell reports, 1995. Vol. 15, No. 3/4. p. 301-304  
Publisher: Berlin, W. Ger. : Springer International.  
CODEN: PCRPD8; ISSN: 0721-7714  
NTE Includes references  
CY Germany  
DT Article  
FS Non-U.S. Imprint other than FAO  
LA English

L5 ANSWER 3 OF 7 AGRICOLA  
AN 94:52219 AGRICOLA  
DN IND20404563  
TI Transformation of maize (Zea mays L.) protoplasts and regeneration of  
haploid transgenic **plants**.  
AU Sukhapinda, K.; Kozuch, M.E.; Rubin-Wilson, B.; Ainley, W.M.; Merlo, D.J.  
AV DNAL (QK725.P54)  
SO Plant cell reports, 1993. Vol. 13, No. 2. p. 63-68  
Publisher: Berlin, W. Ger. : Springer International.  
CODEN: PCRPD8; ISSN: 0721-7714  
NTE Includes references  
CY Germany  
DT Article  
FS Non-U.S. Imprint other than FAO  
LA English

QK 725 . P555

L7 ANSWER 5 OF 57 CAPLUS COPYRIGHT 2002 ACS  
 AN 2001:178390 CAPLUS  
 DN 134:219379  
 TI Induction of embryogenesis from plant microspores  
 IN Simmonds, Daina H.; Newcomb, William; Zhao, Jiping; Gervais, Carmen  
 PA Canada, Minister of Agriculture and Agri-Food, Can.  
 SO U.S., 17 pp., Cont.-in-part of U.S. 5,900,375.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6200808	B1	20010313	US 1999-299107	19990426
	CA 2145833	AA	19960930	CA 1995-2145833	19950329
	US 5900375	A	19990504	US 1996-623523	19960329
PRAI	CA 1995-2145833	A	19950329		
	US 1996-623523	A2	19960329		

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 57 AGRICOLA  
 AN 2001:53457 AGRICOLA  
 DN IND23216204  
 TI **Electroporation** modulates the embryogenic responses to asparagus  
 (Asparagus officinalis L.) microspores.  
 AU Delaitre, C.; Ochatt, S.; Deleury, E.  
 AV DNAL (442.8 P94)  
 SO Protoplasma, 2001. Vol. 216, No. 1/2. p. 39-46  
 Publisher: Wien : Springer-Verlag.  
 CODEN: PROTA5; ISSN: 0033-183X  
 NTE Includes references  
 CY Austria  
 DT Article  
 FS Non-U.S. Imprint other than FAO  
 LA English

L7 ANSWER 18 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 AN 2002:65513 BIOSIS  
 DN PREV200200065513  
 TI Plant transformation by gene transfer into **pollen**.  
 AU Saunders, J. A.; Matthews, B. F.  
 CS Dayton, Md. USA  
 ASSIGNEE: THE UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY OF  
 AGRICULTURE  
 PI US 5629183 May 13, 1997  
 SO Official Gazette of the United States Patent and Trademark Office Patents,  
 (May 13, 1997) Vol. 1198, No. 2, pp. 1117.  
 ISSN: 0098-1133.  
 DT Patent  
 LA English

L7 ANSWER 21 OF 57 CAPLUS COPYRIGHT 2002 ACS  
 AN 1997:11478 CAPLUS  
 DN 126:70744  
 TI **Pollen** and embryo electro-transformation: developing a novel  
 technique to introduce genes into maize  
 AU Tsengwa, Nombasa  
 CS Univ. of Maryland, College Park, MD, USA  
 SO (1996) 125 pp. Avail.: Univ. Microfilms Int., Order No. DA9637734  
 From: Diss. Abstr. Int., B 1997, 57(7), 4214  
 DT Dissertation  
 LA English

L7 ANSWER 22 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 AN 1996:343800 BIOSIS  
 DN PREV199699066156  
 TI Transgenic plants: Production and application on the use of microspores/

**pollen** for genetic modification.  
 AU Malik, C. P.; Ahuja, Ishita; Thind, Sanjeev K.; Bhatia, D. S.  
 CS Dep. Botany, Punjab Agric. Univ., Ludhiana 141004 India  
 SO Malik, C. P. [Editor]. Advances in Pollen-Spore Research, (1996) Vol. 21,  
 pp. 165-220. Advances in Pollen-Spore Research; Pollen-spore research:  
 Emerging strategies.  
 Publisher: Today and Tomorrow's Printers and Publishers 24 B/5 Deshbandhu  
 Gupta Road, Karol Bagh, New Delhi, India.  
 ISSN: 0376-480X. ISBN: 1-55528-279-2, 81-7019-422-9.  
 DT Book  
 LA English

L7 ANSWER 24 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
 2  
 AN 1997:110627 BIOSIS  
 DN PREV199799409830  
 TI Exine-detached **pollen** of *Nicotiana tabacum* as an  
**electroporation** target for gene transfer.  
 AU Shi Hua-Zhong, Wang Jin (1); Yang Hong-Yuan; Zhou Chang (1); Chen  
 Zheng-Hua  
 CS (1) Lab. Plant Reprod. Biol., Coll. Life Sci., Wuhan Univ., Wuhan 430072  
 China  
 SO Acta Botanica Sinica, (1996) Vol. 38, No. 8, pp. 626-630.  
 ISSN: 0577-7496.  
 DT Article  
 LA Chinese  
 SL Chinese; English

L7 ANSWER 26 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 AN 1995:464777 BIOSIS  
 DN PREV199598479077  
 TI Methods in Molecular Biology, Vol. 55. Plant cell **electroporation**  
 and electrofusion protocols.  
 AU Nickoloff, Jac A. [Editor]  
 CS Harvard Univ., Boston, MA USA  
 SO Nickoloff, J. A. [Editor]. Methods in Molecular Biology, (1995) Vol. 55,  
 pp. xiv+205p. Methods in Molecular Biology; Plant cell electroporation and  
 electrofusion protocols.  
 Publisher: Humana Press Inc. Suite 808, 999 Riverview Drive, Totowa, New  
 Jersey 07512, USA.  
 ISSN: 0097-0816. ISBN: 0-89603-328-7.  
 DT Book; (MANUAL)  
 LA English

L7 ANSWER 29 OF 57 AGRICOLA DUPLICATE 4  
 AN 95:51682 AGRICOLA  
 DN IND20475182  
 TI Rapid optimization of **electroporation** conditions for plant  
 cells, protoplasts, and **pollen**.  
 AU Saunders, J.A.; Lin, C.H.; Hou, B.H.; Cheng, J.; Tsengwa, N.; Lin, J.J.;  
 Smith, C.R.; McIntosh, M.S.; Van Wert, S.  
 CS SARL, USDA, ARS, Beltsville, MD.  
 AV DNAL (TP248.13.M65)  
 SO Molecular biotechnology, June 1995. Vol. 3, No. 3. p. 181-190  
 Publisher: Totowa, NJ : Humana Press, c1994-  
 CODEN: MLBOEO; ISSN: 1073-6085  
 NTE Includes references  
 CY New Jersey; United States  
 DT Article  
 FS U.S. Imprints not USDA, Experiment or Extension  
 LA English

L7 ANSWER 30 OF 57 AGRICOLA DUPLICATE 5  
 AN 95:57206 AGRICOLA  
 DN IND20479306  
 TI Introduction of impermeable molecules into **pollen** grains by  
**electroporation**.  
 AU Obermeyer, G.; Weisenseel, M.H.  
 CS Universitat Salzburg, Salzburg.

AV DNAL (442.8 P94)  
SO Protoplasma, 1995. Vol. 187, No. 1/4. p. 132-137  
Publisher: Wien : Springer-Verlag.  
CODEN: PROTA5; ISSN: 0033-183X  
NTE Includes references  
CY Austria  
DT Article  
FS Non-U.S. Imprint other than FAO  
LA English

L7 ANSWER 31 OF 57 CAPLUS COPYRIGHT 2002 ACS  
AN 1995:882330 CAPLUS  
DN 123:310231  
TI **Pollen** electrotransformation in tobacco  
AU Saunders, James A.; Matthews, Benjamin F.  
CS Plant Sci. Inst., ARS, Beltsville, MD, USA  
SO Methods in Molecular Biology (Totowa, NJ, United States) (1995), 55, 81-8  
CODEN: MMBIED; ISSN: 1064-3745  
DT Journal; General Review  
LA English

L7 ANSWER 33 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AN 1994:191436 BIOSIS  
DN PREV199497204436  
TI Analysis of transformed plants produced by **pollen**  
electrotransformation.  
AU Saunders, James A.; Smith, Camelia R.; Cheng, Jianping  
CS SARL, Plant Sci. Inst., USDA/ARS, Beltsville, MD 20705 USA  
SO Journal of Cellular Biochemistry Supplement, (1994) Vol. 0, No. 18 PART A,  
pp. 101.  
Meeting Info.: Keystone Symposium on Improved Crop and Plant Products  
Through Biotechnology Keystone, Colorado, USA January 9-16, 1994  
ISSN: 0733-1959.  
DT Conference  
LA English

L7 ANSWER 35 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
7  
AN 1994:159810 BIOSIS  
DN PREV199497172810  
TI Transient GUS gene expression in Brassica napus **electroporated**  
microspores.  
AU Jardinaud, Marie-Francoise; Souvere, Andre (1); Alibert, Gilbert  
CS (1) Lab. Biotechnologie, Amelioration Plantes, EA, Dred 832 INP, Ensat.  
145 Muret, F-31076 Toulouse Cedex France  
SO Plant Science (Limerick), (1993) Vol. 93, No. 1-2, pp. 177-184.  
ISSN: 0168-9452.  
DT Article  
LA English

L7 ANSWER 36 OF 57 CAPLUS COPYRIGHT 2002 ACS  
AN 1996:166918 CAPLUS  
DN 124:221810  
TI Methods for gene transfer in plants using electrical manipulation,  
successes and failures  
AU Saunders, James A.; Smith, Camelia R.; Cheng, Jianping; Matthews, Benjamin  
F.; O'Neill, Nichole R.  
CS Plant Sciences Institute, USDA/ARS, Beltsville, MD, 20705, USA  
SO Applications of Plant In Vitro Technology, Proceedings of the  
International Symposium, Serdang, Malay., Nov. 16-18, 1993 (1993), 26-42.  
Editor(s): Shamann, Nor Aripin. Publisher: Universiti Pertanian Malaysia,  
Dep. of Biochemistry and Microbiology, Serdang, Malay.  
CODEN: 62MEAQ  
DT Conference; General Review  
LA English

L7 ANSWER 39 OF 57 AGRICOLA  
AN 93:12694 AGRICOLA  
DN IND93002372

DUPLICATE 8

TI Electroporation and PEG delivery of DNA into maize microspores.  
 AU Fennell, A.; Hauptmann, R.  
 CS Northern Illinois University, DeKalb, IL  
 AV DNAL (QK725.P54)  
 SO Plant cell reports, 1992. Vol. 11, No. 11. p. 567-570  
 Publisher: Berlin, W. Ger. : Springer International.  
 CODEN: PCRPD8; ISSN: 0721-7714  
 NTE Includes references.  
 DT Article  
 FS Non-U.S. Imprint other than FAO  
 LA English

QK 725 . P555

L7 ANSWER 40 OF 57 CAPLUS COPYRIGHT 2002 ACS  
 AN 1992:484270 CAPLUS  
 DN 117:84270  
 TI Successful gene transfer in plants using **electroporation** and  
 electrofusion  
 AU Saunders, James A.; Van Wert, Sally L.; Smith, Camelia Rhodes; Matthews,  
 Benjamin F.; Sinden, Stephen  
 CS Beltsville Agric. Res. Cent., Plant Sci. Inst., Beltsville, MD, 20705, USA  
 SO Charge Field Eff. Biosyst.--3, [Int. Symp.], 3rd (1992), Meeting Date  
 1991, 243-62. Editor(s): Allen, Milton J. Publisher: Birkhaeuser, Boston,  
 Mass.  
 CODEN: 57VVAA  
 DT Conference; General Review  
 LA English

L7 ANSWER 45 OF 57 CAPLUS COPYRIGHT 2002 ACS  
 AN 1991:158561 CAPLUS  
 DN 114:158561  
 TI Plant transformation by gene transfer into **pollen**  
 IN Saunders, James A.; Matthews, Benjamin F.  
 PA Agricultural Research Service, USA  
 SO U. S. Pat. Appl., 31 pp. Avail. NTIS Order No. PAT-APPL-7-530 485.  
 CODEN: XAXXAV  
 DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 530485	A0	19901101	US 1990-530485	19900601
	US 5629183	A	19970513	US 1994-345869	19941128
PRAI	US 1989-350356		19890508		
	US 1990-530485		19900601		

L7 ANSWER 47 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 AN 1990:506266 BIOSIS  
 DN BR39:118262  
 TI THE DEVELOPMENT OF **POLLEN** TRANSFORMATION USING  
**ELECTROPORATION** IN TOBACCO.  
 AU SAUNDERS J A; MATTHEWS B F  
 CS GERMPLASM QUALITY AND ENHANCEMENT LAB., USDA/ARS, BELTSVILLE, MD. 20705.  
 SO SYMPOSIUM ON MOLECULAR STRATEGIES FOR CROP IMPROVEMENT HELD AT THE 19TH  
 ANNUAL UCLA (UNIVERSITY OF CALIFORNIA-LOS ANGELES) SYMPOSIA ON MOLECULAR  
 AND CELLULAR BIOLOGY, KEYSTONE, COLORADO, USA, APRIL 16-22, 1990. J CELL  
 BIOCHEM SUPPL. (1990) 0 (14 PART E), 289.  
 CODEN: JCBSD7.  
 DT Conference  
 FS BR; OLD  
 LA English

L7 ANSWER 52 OF 57 CAPLUS COPYRIGHT 2002 ACS  
 AN 1990:153098 CAPLUS  
 DN 112:153098  
 TI Plant transformation by gene transfer into **pollen**  
 IN Saunders, James A.; Matthew, Benjamin F.  
 PA United States Dept. of Agriculture, USA  
 SO U. S. Pat. Appl., 19 pp. Avail. NTIS Order No. PAT-APPL-7-350 356.  
 CODEN: XAXXAV

DT Patent  
LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 350356	A0	19890915	US 1989-350356	19890508
	US 5629183	A	19970513	US 1994-345869	19941128
PRAI	US 1989-350356		19890508		
	US 1990-530485		19900601		

L7 ANSWER 56 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AN 1988:50034 BIOSIS  
DN BA85:26893  
TI IN-VITRO **ELECTROPORATION** OF TOBACCO **POLLEN**.  
AU MISHRA K P; JOSHUA D C; BHATIA C R  
CS MOL. BIOL. DIV., BHABHA ATOMIC RES. CENTRE, TROMBAY, BOMBAY-400 085,  
INDIA.  
SO PLANT SCI (SHANNON), (1987) 52 (1-2), 135-140.  
CODEN: PLSCE4. ISSN: 0168-9452.  
FS BA; OLD  
LA English

QK1 .P69

L7 ANSWER 57 OF 57 AGRICOLA  
AN 1999:1598 AGRICOLA  
DN IND21807761  
TI Plant transformation by gene transfer into **pollen**.  
AU Saunders, J.A.; Matthews, F.  
SO [United States Department of Agriculture patents], 1 p  
Publisher: [Washington, D.C.? : The Department, 1900?-  
NTE Copies of USDA patents are available for a fee from the Commissioner of  
Patents and Trademarks, U.S. Patent and Trademark Office, Washington, D.C.  
20231.  
Includes references  
CY District of Columbia; United States  
DT Article  
FS USDA  
LA English

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(FILE 'HOME' ENTERED AT 16:01:04 ON 15 OCT 2002)

FILE 'AGRICOLA, BIOSIS, CAPLUS, EMBASE' ENTERED AT 16:01:16 ON 15 OCT 2002

L1 3148 S MICROSPORE AND PLANT  
L2 0 S L1 AND ELECROPORAT###  
L3 136 S L1 AND TRANSFORM####  
L4 82 DUP REM L3 (54 DUPLICATES REMOVED)  
L5 7 S L4 AND ELECTRO?  
L6 70 S POLLEN AND ELECTROPORAT?  
L7 57 DUP REM L6 (13 DUPLICATES REMOVED)